We claim:

1. An improved method for chemotherapy in a human patient, wherein the improvement comprises administering to the human chemotherapy patient an amount effective for treating or preventing chemotherapy side effects of at least one active agent comprising a sequence of at least three contiguous amino acids of groups R^1-R^8 in the sequence of general formula I

$$R^1\text{-}R^2\text{-}R^3\text{-}R^4\text{-}R^5\text{-}R^6\text{-}R^7\text{-}R^8$$

wherein R^1 is selected from the group consisting of H, Asp, Glu, Asn, Acpc (1-aminocyclopentane carboxylic acid), Ala, Me^2Gly, Pro, Bct, Glu(NH_2), Gly, Asp(NH_2) and Suc,

R^2 is selected from the group consisting of Arg, Lys, Ala, Orn, Ser(Ac), Sar, D-Arg and D-Lys;

R^3 is selected from the group consisting of Val, Ala, Leu, Lys, norLeu, Ile, Gly, Pro, Aib, Acpc and Tyr;

R^4 is selected from the group consisting of Tyr, Tyr(PO_3)$_2$, Thr, Ser, Ala, homoSer and azaTyr;

R^5 is selected from the group consisting of Ile, Ala, Leu, norLeu, Val and Gly;

R^6 is selected from the group consisting of His, Arg or 6-NH_2-Phe;

R^7 is selected from the group consisting of Pro or Ala; and

R^8 is selected from the group consisting of Phe, Phe(Br), Ile and Tyr,

excluding sequences including R^4 as a terminal Tyr group;

and wherein the active agent is not SEQ ID NO:1.

3. The method of claim 1 wherein the active agent comprises a sequence of at least five contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

4. The method of claim 1 wherein the active agent comprises a sequence of at least six contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

5. The method of claim 1 wherein the active agent comprises a sequence of at least seven contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

6. The method of claim 1 wherein the active agent consists essentially of a sequence of at least three contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

7. The method of claim 1 wherein the active agent consists essentially of a sequence of at least four contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

8. The method of claim 1 wherein the active agent consists essentially of a sequence of at least five contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

9. The method of claim 1 wherein the active agent consists essentially of a sequence of at least six contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

10. The method of claim 1 wherein the active agent consists essentially of a sequence of at least seven contiguous amino acids of groups R^1-R^8 in the sequence of general formula I.

11. The method of claim 1 wherein the active agent comprises a sequence selected from the group consisting of angiotensinogen, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24,

ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, and SEQ ID NO:42.

12. The method of claim 1 wherein the active agent comprises the amino acid sequence of SEQ ID NO:4.

13. The method of claim 1 wherein the active agent consists essentially of a sequence selected from the group consisting of angiotensinogen, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:18, SEQ ID NO:19, SEQ ID NO:20, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27, SEQ ID NO:28, SEQ ID NO:29, SEQ ID NO:30, SEQ ID NO:31, SEQ ID NO: 32, SEQ ID NO:33, SEQ ID NO: 34; SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, SEQ ID NO:41, and SEQ ID NO:42.

14. The method of claim 1 wherein the active agent consists essentially of the amino acid sequence of SEQ ID NO:4.

15. The method of claim 1 wherein the active agent comprises a sequence of the following general formula II:

Asp-Arg-R1-R2-Ile-His-Pro-R3, wherein

R1 is selected from the group consisting of Val, Pro, Lys, Norleu, and Leu;

R2 is selected from the group consisting of Ala, Tyr, and Tyr$(PO_3)_2$; and

R3 is Phe or is absent.

Asp-Arg-R1-R2-Ile-His-Pro-R3, wherein

R1 is selected from the group consisting of Val, Pro, Lys, Norleu, and Leu;

R2 is selected from the group consisting of Ala, Tyr, and Tyr$(PO_3)_2$; and

R3 is Phe or is absent.

17. The method of claim 15 wherein the active agent comprises a sequence selected from the group consisting of SEQ ID NO:4, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, and SEQ ID NO:41.

18. The method of claim 16 wherein the active agent consists essentially of a sequence selected from the group consisting of SEQ ID NO:4, SEQ ID NO:31, SEQ ID NO:32, SEQ ID NO:33, SEQ ID NO:38, SEQ ID NO:39, SEQ ID NO:40, and SEQ ID NO:41.

19. The method of claim 1 wherein the side effect is selected from the group consisting of hematopoietic toxicity, decreased mobilization of hematopoietic progenitor cells from bone marrow into the peripheral blood; anemia, myelosuppression, pancytopenia, thrombocytopenia, neutropenia, lymphopenia, leukopenia, stomatitis, alopecia, headache, and muscle pain.

20. The method of claim 1 wherein the active agent is administered at a dosage of between about 2.5 μg/kg/day and about 100 μg/kg/day.

21. The method of claim 1 wherein the active agent is administered at a dosage of between about 10 μg/kg/day and about 75 μg/kg/day.

22. The method of claim 1 wherein the active agent is administered parenterally.

23. The method of claim 22 wherein the active agent is administered subcutaneously or intravenously.

25. The method of claim 24 wherein the active agent is administered into the abdomen or thigh.

26. The method of claim 1 wherein administration of the active agent is initiated either at the time chemotherapy is initiated, or subsequently to initiation of chemotherapy.

27. The method of claim 1 wherein the active agent is administered once per day.

28. A pharmaceutical composition comprising

a) an amount of the active agent of claim 1 sufficient to provide a dosage to a patient of between about 2.5 μg/kg/day and about 100 μg/kg/day; and

b) a pharmaceutically acceptable carrier.

29. The pharmaceutical composition of claim 28 wherein the active agent is selected from the group consisting of SEQ ID NO:4 and SEQ ID NO:41

30. The pharmaceutical composition of claim 28 further comprising an amount effective of a cytokine for increasing hematopoietic cell production.

31. The pharmaceutical composition of claim 30 wherein the cytokine is selected from the group consisting of granulocyte colony stimulating factor, granulocyte-macrophage-CSF, epidermal growth factor, interleukin 11, thrombopoietin, megakaryocyte development and growth factor, pixykines, stem cell factor, FLT-ligand, and interleukins 1, 3, 6, and 7.

32. The pharmaceutical composition of claim 31 wherein the cytokine is granulocyte colony stimulating factor.

33. An article of manufacture, comprising the pharmaceutical composition of claim 28 loaded in a drug delivery device.